

# USDA Forest Service Update

## March 2009



### SUBJECT: White-nose Syndrome and Bat Conservation

**SUMMARY:** White-nose Syndrome (WNS) is a factor involved in the deaths of very significant numbers of bats, and may be the cause of the mortality. At least six bat species have been affected since 2007, including the endangered Indiana bat. Monitoring bat and hibernacula, WNS research, and slowing the spread of a fungus species are the focus of current land management and research actions.

**BACKGROUND:** White-nose Syndrome is a name given to a fungal agent recently identified to the genus *Geomyces*, that is causing mass mortalities at a growing number of bat hibernacula in the northeastern U.S. Hundreds of thousands of bats are dying, with estimates as high as 500,000 bats affected. Mortality rates in some sites are higher than 90%, with 100% mortality documented at one site. A key characteristic of WNS is white fungal growth around nose, as well as on wing membranes and ears. Affected bats also show behavioral changes, such as foraging during the day in winter and roosting near cave entrances.

It is not known if WNS is the cause of death or a compounding factor. It is known that dead bats suffering from WNS have no fat reserves left at time of death, when they should have enough fat left to hold them through to early April. WNS affected bats are starving to death.

WNS was first discovered in two counties in NY the winter of 2006 – 2007. By winter 2007 – 2008, WNS had spread to 15 counties in four states; NY, VT, MA, and CT. To date, WNS is known from 29 counties in 9 states including NY, VT, NH, MA, CT, NJ, PA, WV, and just this month, VA. There is a very high risk of WNS spreading to extremely important U.S. bat populations in the states of AL, IN, IL, KY, TN, MO, AR and elsewhere.

WNS may be spread from bat to bat during winter months. The *Geomyces* fungus is a cold-loving fungus and is believed to die on bats during the warmer months when bats are not in cold caves. It is speculated that WNS is spread from human to bat by transporting fungal spores from cave to cave, by cavers, other recreationist and land managers. The Southeastern Cave Conservancy and National Speleological Society have closed some of their caves because of WNS. The State of VA closed all caves on state lands after WNS was discovered in VA.

Monitoring and research are ongoing by numerous state and federal agencies and organizations. Because WNS may be spread by humans, the Forest Service is considering closing caves and mines in the eastern U.S. known to have bats hibernating in them, in an attempt to slow the spread of WNS until researchers get more answers on WNS and how to treat it. The Forest Service is coordinating with state wildlife agencies, researchers, cavers and others.

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FWS WNS site: [http://www.fws.gov/northeast/white\\_nose.html](http://www.fws.gov/northeast/white_nose.html)

Bat Conservation and Management: <http://www.batmanagement.com/wns/wns.html>

National Speleological Society: <http://www.caves.org/WNS/WNS%20Info.htm>

USGS site: [http://www.nwhc.usgs.gov/disease\\_information/white-nose\\_syndrome/index.jsp](http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/index.jsp)